

### **REMARKS**

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated May 30, 2008 has been received and its contents carefully reviewed.

#### **Summary of the Office Action**

Claims 1, 3, 5, 7-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Claims 1, 5, 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cairns et al. ("Cairns 1") (US Patent Application: 2002/0030652 A1) in view of Cairns et al. ("Cairns 2") (US Patent No: 6,268,841 B1), Enami et al (US Patent No: 5,892,493) (hereinafter "Enami"), and Morita (US Patent No: 6,989,810 B2) (hereinafter "Morita"). Claims 30, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Cairns 1" in view of "Cairns 2". Claims 3, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Cairns 1" in view of "Cairns 2" and Nitta et al. (US Patent No: 6,661,402 B1) (hereinafter "Nitta"). Claims 2, 14-29, 35-47 are rejected under 35 USC 103(a) as being unpatentable over "Cairns 1" in view of "Cairns 2", "Enami", "Nitta", and "Morita".

#### **Summary of the Response to the Office Action**

Applicant has amended claims 1, 9, 11 and 17 to further define the invention and deleted claims 2, 4-7, 10, 13, 28, 31, 33 and 35-47. No new matter has been added. Thus, claims 1, 3, 8, 9, 11, 12, 14-27, 29, 30, 32 and 34 are currently pending.

#### **Claim Rejections – 35 U.S.C. § 112**

Claims 1, 3, 5 and 7-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Applicant respectfully traverses the rejections.

Applicant has amended claim 1 to overcome the Examiner's rejections to claims 1, 3, 5, 7-8, and deleted claims 5 and 7. Thus, Applicant respectfully requests that the rejections to claims 1, 3 and 8 be withdrawn.

#### **Claim Rejections – 35 U.S.C. § 103**

Claims 1, 5, 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cairns et al. (US Patent Application: 2002/0030652 A1) (hereinafter "Cairns 1") in view of Cairns et al.

(US Patent No: 6,268,841 B1) (hereinafter "Cairns 2"), Enami et al (US Patent No: 5,892,493) (hereinafter "Enami"), and Morita (US Patent No: 6,989,810 B2) (hereinafter "Morita"). Applicant respectfully traverses the rejections.

Claim 1, as amended, is allowable over the cited references in that claim 1 recites a combination of elements including, for example, "...a shift register part sequentially shifting an input source start pulse in accordance with an input source shift clock to generate a sampling signal; a latch part sequentially latching a digital pixel data in response to the sampling signal from the shift register part; a first multiplexer part performing a time-division on the digital pixel data from the latch part; ...wherein the first multiplexer and the demultiplexer part are controlled by an ODD/EVEN signal which performs the time-division for a horizontal period". None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention. First, at least "Cairns 1" fails to teach "a first multiplexer (Fig. 4, item 13) part performing a time-division" because "Cairns 1" are silent in performing a time-division. See Fig. 4 and col. 2, paragraph from [0013] to paragraph [0016]. Further, at least "Cairns 1" fails to teach "wherein the first multiplexer and the demultiplexer part are controlled by an ODD/EVEN signal which performs the time-division for a horizontal period". Furthermore, at least "Cairns 1" fails to teach "a latch part sequentially latching a digital pixel data in response to the sampling signal from the shift register part". For at least these reasons, applicant respectfully submits that claim 1 and claims 3 and 8, which depend on claim 1, are allowable over the cited references.

Claims 30, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cairns et al. (US Patent Application: 2002/0030652 A1) (hereinafter "Cairns 1") in view of Cairns et al. (US Patent No: 6,268,841 B1) (hereinafter "Cairns 2"). Applicant respectfully traverses the rejections.

As noted earlier, claim 30 is allowable over the cited references in that at least "Cairns 1" fails to teach "a first multiplexer (Fig. 4, item 13) part performing a time-division" because "Cairns 1" are silent in performing a time-division. See Fig. 4 and col. 2, paragraph from [0013] to paragraph [0016]. For at least this reason, applicant respectfully submits that claim 30 and claim 34, which depend on claim 30, are allowable over the cited references.

Claims 3, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cairns et al. (US Patent Application: 2002/0030652 A1) (hereinafter "Cairns 1") in view of Cairns et al. (US Patent No: 6,268,841 B1) (hereinafter "Cairns 2") and Nitta et al. (US Patent No: 6,661,402 B1) (hereinafter "Nitta"). Applicant respectfully traverses the rejections.

Claim 3, which depends on claim 1, is allowable over the cited references. The reason for allowance of claim 3 is at least the same as that of claim 1. Claim 32, which depends on claim 30, is allowable over the cited references. The reason for allowance of claim 32 is at least the same as that of claim 30. Thus, for at least this reason, claims 3 and 32 are allowable over the cited references

Claims 2, 14-29, 35-47 are rejected under 35 USC 103(a) as being unpatentable over Cairns et al. (US Patent Application: 2002/0030652 A1) (hereinafter "Cairns 1") in view of Cairns et al. (US Patent No: 6,268,841 B1) (hereinafter "Cairns 2"), Enami et al (US Patent No: 5,892,493) (hereinafter "Enami"), "Nitta et al. (US Patent No: 6,661,402 B1) (hereinafter "Nitta"), and Morita (US Patent No: 6,989,810 B2) (hereinafter "Morita"). Applicant respectfully traverses the rejections.

Claims 14-27 are allowable over the cited references because none of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention. Thus, for at least this reason, claims 14-27 are allowable over the cited references.

Applicants believe the foregoing amendments place the application in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the

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filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

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Respectfully submitted,

By Valerie P. Hayes  
Valerie P. Hayes  
Registration No.: 53,005  
McKENNA LONG & ALDRIDGE LLP  
1900 K Street, N.W.  
Washington, DC 20006  
(202) 496-7500  
Attorneys for Applicant